

Message

From: Hanlon, Lisa [Hanlon.Lisa@epa.gov]
Sent: 1/4/2017 6:59:10 PM
To: Little, David [david.little@dnr.mo.gov]; Herstowski, Ken [Herstowski.Ken@epa.gov]
CC: Cheever, Robert [cheever.robert@epa.gov]
Subject: RE: tire pyrolysis

Hi David:

Sorry this took so long to get back to you, but I was on vacation for the past 2 weeks.

I spoke with Ken Herstowski, our RCRA guy who handles hazardous waste incinerators as well as the non-hazardous secondary materials rule. It sounds to me like the tire pyrolysis unit is not an incinerator. According to the NHSM rule, if a material is processed before burning, then it is not considered a waste. The "processing" is what turns a waste into a fuel, and apparently shredding tires (regardless of whether it's done on site or somewhere else) is considered to be "processing" the material into a fuel. Therefore, this pyrolysis unit couldn't be an incinerator because the CAA defines an incinerator as something that burns *any solid waste*.

I hope this helps. If you'd like to discuss this further, please feel free to contact me or Ken directly.

Lisa

Lisa Hanlon
U.S. EPA Region 7
Air Permitting and Compliance
11201 Renner Blvd.
Lenexa, KS 66219
913-551-7599
hanlon.lisa@epa.gov

From: Little, David [mailto:david.little@dnr.mo.gov]
Sent: Tuesday, December 20, 2016 9:16 AM
To: Hanlon, Lisa <Hanlon.Lisa@epa.gov>
Cc: Cheever, Robert <cheever.robert@epa.gov>
Subject: tire pyrolysis

Lisa,

Will a proposed tire pyrolysis meet the definition of incineration and be subject to CISWI?

- Whole tires are brought onsite and shredded onsite.
- Shredded tires are fed into a chamber, with a nitrogen purge, then indirectly heated to 500-1100 F.
- Collected vapor is condensed to synoil. Non-condensable vapor (syngas) is indirectly fired to heat the chamber. Excess syngas is flared onsite. Syngas is not sold offsite.
- Char, steel, and synoil are shipped offsite. The primary purpose is not metal recovery.

I can't find an answer in the CISWI rule, CISWI public comments and responses, solid waste regs, ADI, or other states' recent permits (CH2E in Hudson Colorado, Alliance International/Theodore Tire in Alabama, Reclaim in Oregon, Greenu in Nevada, Kool Metal Recycling in Florida, Blizzard Energy in Kansas). Here are the questionable parts,

- Do the tires have to be obtained from an approved tire management program, otherwise they are solid waste and CISWI? Or does the approved tire management program only apply to combustion units such as a boiler or cement kiln?
- The syngas is "contained gaseous material", and therefore is solid waste per 40 CFR 258.2 and 40 CFR 241.2?
- The syngas and synoil are typically offspec and do not meet the requirements to be a traditional fuel or ingredient. If the 40 CFR 241.3 legitimacy criteria are not satisfied for the gas, oil, and char then this is solid waste combustion?

- Do the chamber heater and waste flare have to meet the control device requirements in 40 CFR 60.18, otherwise they are incinerators?
- Does the facility need to continuously demonstrate the process not to be incineration, per the Feb 2, 2000 EPA Region 5 response to Indiana, "Pyrolysis Unit NSPS Definition"?
 - Zero oxygen inside the chamber
 - Positive chamber pressure
- NSPS Ea, Eb, and EEEE specifically define pyrolysis as incineration. Why is CCCC so unclear?

Thank you,

David Little, PE
Environmental Engineer III
Missouri Department of Natural Resources
Air Pollution Control Program, Permits Section
P.O. Box 176, Jefferson City, MO 65102
573-751-4817